ABSTRACT OF THE DISCLOSURE

The present invention relates to an improved method and apparatus for detecting and diagnosing disease states in a living organism by using a plurality of electrical impedance measurements. In particular, the invention provides for an improved electrode array for diagnosing the presence of a disease state in the human breast, and discloses a method of application of the array to the breast that ensures that the multiplicity of impedance measurements obtained from a first body part correspond as precisely and reproducibly as possible to the multiplicity of impedance measurements that are obtained from another, homologous, second body part. A number of diagnostic methods based on homologous electrical difference analysis are disclosed, including the calculation of a number of metrics used to indicate disease states by comparison with pre-established threshold values, and the construction of a number of graphical displays for indicating the location of disease to a body part sector.